

# Marine Physical Laboratory

2

AD-A244 785



## Marine Geophysical Data Analysis

Peter F. Lonsdale

*Final Report to the Office of Naval Research  
Contract N00014-89-D-0142 (DO#5)  
For the Period 12-01-89 - 11-30-90*



MPL-U-100/91  
December 1991

92-01489



*Approved for public release; distribution unlimited.*



University of California, San Diego  
Scripps Institution of Oceanography

92 1 16 072

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
<small>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small>				
1. Agency Use Only (Leave Blank).		2. Report Date. December 1991		3. Report Type and Dates Covered. Final Report
4. Title and Subtitle.  Marine Geophysical Data Analysis			5. Funding Numbers.  N00014-89-D-0142	
6. Author(s).  Peter F. Lonsdale			Project No. Task No. DO#05	
7. Performing Monitoring Agency Name(s) and Address(es).  University of California, San Diego Marine Physical Laboratory Scripps Institution of Oceanography San Diego, California 92152			8. Performing Organization Report Number.  MPL-U-100/91	
9. Sponsoring/Monitoring Agency Name(s) and Address(es).  Office of Naval Research Department of the Navy 800 North Quincy Street Arlington, VA 22217-5000			10. Sponsoring/Monitoring Agency Report Number.	
11. Supplementary Notes.				
12a. Distribution/Availability Statement.  Approved for public release; distribution is unlimited.			12b. Distribution Code.	
13. Abstract (Maximum 200 words).  The main objective was to process and interpret marine geophysical data collected on a Hawaii to California transect of the North Pacific which was conducted by the Scripps Institution of Oceanography in May 1989. The tasks included plotting and display of Sea Beam bathymetric contours and profiles, and using seismic reflection profiles to estimate the thickness of sediment.				
14. Subject Terms.  geophysical data analysis Sea Beam seismic reflection profiles			15. Number of Pages. 1	
			16. Price Code.	
17. Security Classification of Report. Unclassified	18. Security Classification of This Page. Unclassified	19. Security Classification of Abstract. Unclassified		20. Limitation of Abstract.  None

# *Marine Geophysical Data Analysis*

**Peter F. Lonsdale**

**A Final Report prepared for  
the Office of Naval Research  
Contract N00014-89-D-0142 (DO#5)  
for the Period 12-01-89 - 11-30-90**



Accession For	
NTIS	ORAD
DTIC	AD
Unannounced	
Justification	
By	
Distribution	
Availability	
Dist	At
A1	

---

## *Objective*

Assess variations in roughness of the seafloor transect of an earlier acoustic reflectivity experiment site.

---

## *Background*

The work involved the processing and interpretation of marine geophysical data collected on a Hawaii to California transect of the North Pacific which was conducted by the Scripps Institution of Oceanography in May 1989.

---

## *Results*

Marine geophysical data collected on a Hawaii to California transect of the North Pacific conducted by the Scripps Institution of Oceanography in May 1989 was processed and interpreted according to specifications developed with Dr. Orest Diachok of the Naval Research Laboratory.

The tasks included plotting and display of Sea Beam bathymetric contours and profiles, and using seismic reflection profiles to estimate the thickness of sediment (both its local and regional variation). The objective was to assess variations in roughness of the seafloor and of the subbottom bedrock surface along a transect that had been the site of an earlier acoustic reflectivity experiment. The work was performed by Science Research Associate Andrea Bobbitt under the direction of Dr. Peter Lonsdale.

## **ONR/MPL REPORT DISTRIBUTION**

**Scientific Officer (3)**

**Code 5120**

**Naval Research Laboratory**

**Department of the Navy**

**Washington, D.C. 20375**

**Administrative Contracting Officer (3)**

**Office of Naval Research**

**Resident Representative N66018**

**University of California, San Diego**

**(Mail Code 0234) 8603 La Jolla Shores Drive**

**San Diego, CA 92093-0234**

**Director, Naval Research Laboratory (1)**

**Atten: Code 2627**

**Washington, D.C. 20375**

**Defense Technical Information Center (4)**

**Building 5, Cameron Station**

**Alexandria, Virginia 22314**